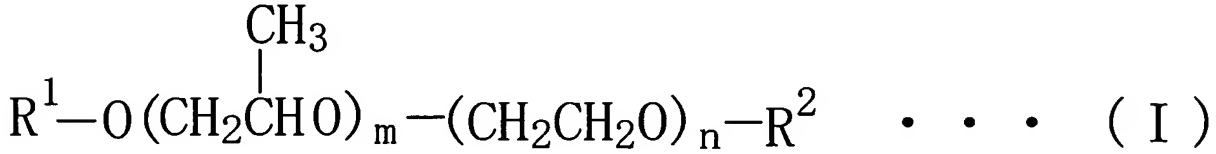
What is claimed is:

1. A refrigerating oil composition comprising

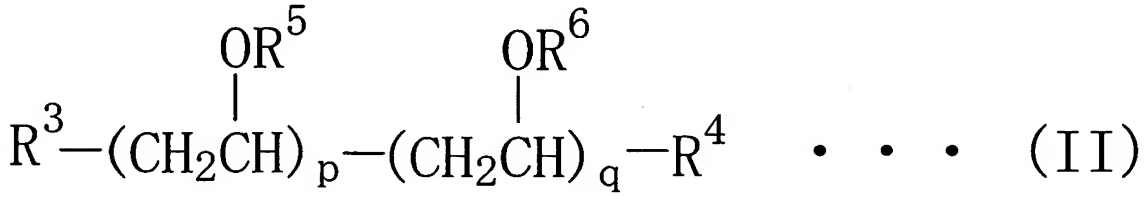
a refrigerant (A) containing as a predominant component a C1-C8 hydrocarbon compound and

a base oil (B) composed of a polyalkylene glycol ether represented by formula (I):



$$R^1-O(CH_2\underset{\displaystyle CH_3}{\underset{|}{C}}HO)_m-(CH_2CH_2O)_n-R^2 \quad \cdots \quad (I)$$

wherein each of R^1 and R^2 represents a hydrogen atom, a C1-C18 hydrocarbon group, or a C2-C18 acyl group, provided that R^1 and R^2 are not simultaneously hydrogen atoms; each of m and n is an integer of 1 or more; and n/(m + n) is more than 0.4, and/or a polyvinyl ether represented by formula (II):



$$R^3-(CH_2\underset{\displaystyle OR^5}{\underset{|}{C}}H)_p-(CH_2\underset{\displaystyle OR^6}{\underset{|}{C}}H)_q-R^4 \quad \cdots \quad (II)$$

wherein each of R^3 and R^4 represents a hydrogen atom, a C1-C18 hydrocarbon group, or a C2-C18 acyl group; R^5 represents a C1-C4 hydrocarbon group; R^6 represents a C2-C4 hydrocarbon group, provided that the number of carbon atoms contained in R^6 is greater than that of carbon atoms contained in R^5; p is an integer of 1 or more; and q is an integer of 0 or more,

and satisfying the following conditions:

(i) solubility of the refrigerant (A) in the base oil (B) is 40 mass% or less at 40°C and 1.2 MPa and

(ii) mixture viscosity of the refrigerating oil composition is 0.1 mm^2/s or more at 90°C and 2.3 MPa.

2. A refrigerating oil composition as described in claim 1, wherein p/(p + q) in formula (II) is 0.1 or more.

3. A refrigerating oil composition as described in claim 2, wherein R^5 in formula (II) is a methyl group.

4. A refrigerating oil composition as described in any one of claims 1 to 3, wherein the solubility of the refrigerant (A) in the base oil (B) is 2 to 40 mass% at 40°C and 1.2 MPa.

5. A refrigerating oil composition as described in claim 4, wherein the solubility of the refrigerant (A) in the base oil (B) is 2 to 30 mass% at 40°C and 1.2 MPa.

6. A refrigerating oil composition as described in claim 5, wherein the solubility of the refrigerant (A) in the base oil (B) is 5 to 25 mass% at 40°C and 1.2 MPa.

7. A refrigerating oil composition as described in any one of claims 1 to 6, which exhibits a mixture viscosity of 0.5 mm^2/s or more at 90°C and 2.3 MPa.

8. A refrigerating oil composition as described in any one of claims 1 to 7, wherein the base oil (B) has a weight average molecular weight (Mw) of 500 or more.

9. A refrigerating oil composition as described in any one of claims 1 to 8, wherein the base oil (B) has an oxygen atom content of 10 mass% or more.